Breast feeding decreases risk of Salmonellosis among infants in FoodNet Sites

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Salmonellosis is usually a self-limited disease in healthy older children and adults, but in infants it may be more serious and complicated. To determine exposures associated with salmonellosis in infants, we conducted a 12-month, population based case-control study in 5 Foodborne Diseases Active Surveillance Network (FoodNet) sites (CA CT, GA, MN, and OR) In 1996-1997. A case-patient was defined as a child under 1 year of age with a non-typhoidal group B or D *Salmonella* infection identified via active laboratory-based surveillance. Controls were matched by age and either telephone exchange, clinic, or vital record birth list, Seventy-three patients were identified. Frequent symptoms among patients included reported fever (73%), history of bloody diarrhea (62%), and vomiting (42%). The most common serotype was S. Typhimurium (44%). Twenty-four patients (33%) were matched with controls. Enrolled patients did not differ significantly from those not enrolled by median age, symptom profile, or serotype. The median ages of patients and controls were 152.5 and 168 days, respectively. In univariate analysis, patients were less likely to have been breast fed during the 5 days before Illness; none of 22 patients were breast fed, compared with 18 (47%) of 38 controls (matched odds ratio [mOR]=0, 95% confidence Interval [CI] 0-0.96). Overall, there was a trend for patients to stop breast feeding at a younger age than controls (median age when breast feeding was stopped: patients=42 days; controls=60 days, p=0.2). In univariate analysis, other factors significantly associated with illness included drinking any type of water (mOR= (infinity),95% CI 1.1-(infinity)) and eating any solid food as of the date illness began (mOR=9.2, 95% CI 1.1-433.6). Because of small sample size, we were unable to evaluate the relationship between water, solid food consumption, and breast feeding in multivariate analysis. Breast feeding is important in enhancing infant immunity. Mothers should be encouraged to continue breast feeding through infancy to decrease the risk of salmonellosis and other infectious diseases for their infants. Mothers should also be educated about salmonellosis and safe preparation of solid foods.

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